(12) PATENT APPLICATION (11) Application No. **AU 199665536 A1**
(19) AUSTRALIAN PATENT OFFICE

(54) Title
Guidepost

(51) International Patent Classification(s)
G09F 007/18 **E01F 009/017**

(21) Application No: **199665536** (22) Date of Filing: **1996.09.10**

(30) Priority Data

(31) Number	(32) Date	(33) Country
PN5357	**1995.09.12**	**AU**

(43) Publication Journal Date: **1997.03.20**

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Barry John Phillips

(54) Inventor(s)
Barry John Phillips

AUSTRALIA
Patents Act 1990

65536/96

P/00/001
Section 29
Revised 11/93

Patent Request : Standard Patent / Patent of Addition

I/We, being the person(s) identified below as the Applicant, request the grant of a patent to the person identified below as the Nominated Person, for an invention described in the accompanying standard complete specification.

Full application details follow:

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[54] Invention Title

GUIDEPOST.

[72] Name(s) of actual inventor(s)

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Associated Provisional Application(s) Details

[60] Application Number(s) and Date(s)

Application Number	Date of Application
PN5357	12 / 9 / 1995
	/ /

Basic Convention Application(s) Details

[31] Application Number	[33] Country	Country Code	[32] Date of Application
S069237 10/09/96			/ /
			/ /

Divisional Application Details

[62] Original application number

Patent Invention Details (Patent of Addition requests only)

[61] Application number Patent number

Drawing number recommended to accompany the abstract 1

Signature Barry Phillips Date 29 / 8 / 1996

AUSTRALIA
Patents Act 1990

P/00/008b
Section 29(1)
Regulation 3.1(2)

Notice of Entitlement

(To be filed before acceptance)

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I/~~We~~, BARRY JOHN PHILLIPS

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being the applicant in respect of Application No: PN5357
state the following:-

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or

☐ ~~*has entitlement from the actual inventor(s) *(please insert name(s))*~~

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The basic application(s) listed in the declaration made under Article 8 of the PCT

__ *is/*are the first application(s) made in a Convention country in respect of the invention

or

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I,

the *applicant / *patentee for *application /*patent No

authorise

to apply for a further patent for an improvement in, or modification of, the main invention.

/ /

Signature Date

***Note:** This part must be signed by the applicant/patentee of the main invention.*

George Phillips 29 / 8 /1996

/ /

Signature(s) Date

(if the applicant is a Company or other legal entity, also indicate the name and standing of the authorised signatory)

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(Note: This MUST be signed FOR ALL APPLICATIONS)

AU9665536

(12) PATENT ABSTRACT (11) Document No. AU-A-65536/96
(19) AUSTRALIAN PATENT OFFICE

(54) Title
GUIDEPOST

(51)[6] International Patent Classification(s)
G09F 007/18 E01F 009/017

(21) Application No. : 65536/96 (22) Application Date : 10/09/96

(30) Priority Data

(31) Number (32) Date (33) Country
PN5357 12/09/95 AU AUSTRALIA

(43) Publication Date : 20/03/97

(71) Applicant(s)
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(72) Inventor(s)
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(57)

A guidepost or similar such post is disclosed.The device is a resilient elongate member (11) connected to a short flexible elastic portion (15) by brackets (16) and rivets (17) which is connected to a metal peg (12) by brackets (16) and rivets (17),which is driven into the ground by known tools without the need for a post hole to be provided for insertion.The device can be bent over many times and return to its erect position without breaking.

CLAIM

1. A guidepost or similar such post which is flexible,particularly adjacent its base when inserted into the ground,so that it can easily bend when a force is exerted thereon,and which has a substantially hard spike or like arrangement which enables it to be easily inserted into the ground without the need for a post hole to be provided for insertion.

GUIDEPOST

The present invention relates to posts and, in particular, to a guidepost or similar post which is flexible, particularly adjacent its base when inserted into the ground, so that it can easily bend when a force is exerted thereon, and which has a substantially hard spike or like arrangement which enables it to be easily inserted into the ground without the need for a post hole to be provided for insertion. The present invention also relates to a guidepost or similar such post which is flexible, particularly adjacent its base so that it can easily bend when a force is exerted thereon, and which has a base or like arrangement which enables it to be easily bolted or the like to concrete or like surfaces.

BACKGROUND TO THE INVENTION

In most circumstances, guideposts are used to indicate the edge of a road. One type of guideposts of one type are placed along the shoulder of the road surface and stand about 1 to 1.5 metres high. These guideposts are relatively thin and preferably have reflectors attached adjacent the top thereof. These guideposts are not used as barriers but are positioned to indicate the position and direction of the road and are generally used on secondary roads or on safe sections of main roads or highways.

Some of these types of guideposts are made from wood and are forced into the ground in a similar manner to a wooden stake or a post hole must be provided for insertion. These wooden guideposts are easily damaged if a motor vehicle accidentally veers off the road surface and collides with the guideposts and frequently have to be replaced for this reason. They are also vulnerable to vandalism due to their nature. Some vandals have been known to deliberately drive along the side of the road to damage as many guideposts as possible. They can also be easily vandalised by pedestrians walking along the side of the road, who may also remove the guideposts for their own use as posts or as firewood. As these types of wooden guideposts are so

susceptible to damage or theft, their use is declining due to the high replacement costs of materials as well as labour.

Another form of these types of guideposts is made from a metal stake. Once again these metal guideposts are driven into the ground, but unlike the wooden guideposts are sturdy and can cause damage to a motor vehicle and occupants if the motor vehicle collides therewith. Therefore for safety reasons the use of these metal guideposts is unsatisfactory.

Another form of the aforementioned guideposts is made from resilient material, such as high density polyethylene or similar material, which is able to bend when hit by a colliding motor vehicle. The idea behind the use of such resilient guideposts is that the guideposts are easily bent, and therefore they do not cause serious damage to the motor vehicle, and the occupants are saved from injury. A problem associated with these types of guideposts is that they cannot be driven into the ground like the abovementioned wooden and metal stakes. Post holes must be dug prior to insertion of the resilient guideposts. This labour intensive operation adds to the cost of their use and therefore tends to restrict their use.

Another problem associated with these resilient guideposts is that if the guideposts are bent a number of times by motor vehicles, they become stressed and do not return to an upright position when bent. If this is the case they become ineffective and must be replaced in a similar manner to the wooden and metal guideposts.

Therefore it is believed that there is a need to have a guidepost which is: resilient to cause minor or no damage to a colliding motor vehicle; flexible so that it returns to its desired upright position; and has means by which the guidepost is easily inserted or attached to the ground.

It is noted that reference has been made specifically to guide-posts used as markers for roads and the like, however the present invention is not specifically so restricted as the post can be used for a variety of different uses.

OBJECT OF THE INVENTION

The present invention has been conceived out of the need to provide a post to overcome or at least ameliorate the above mentioned problems or to provide an advantageous use of such a post. At the very least, the invention provides an alternative to known posts.

DISCLOSURE OF THE INVENTION

According to the present invention there is provided a post comprising a resilient elongate member adapted to extend upwardly from a surface to which said post is mounted or fixed, and a flexible elastic portion connecting between said resilient elongate member and a mounting or fixing means by which said post is mounted or fixed to said surface, whereby said flexible elastic portion allows said resilient elongate member to deflect and return to an upright position following an application of a force to same.

In one preferred form the mounting or fixing means is made from a hard material and is adapted to be forced into the surface, when the surface is relatively soft, such as the earths ground surface. This mounting or fixing means preferably takes the form of a metal peg which is forced into the ground with the flexible elastic portion of the post being adjacent the grounds surface when erected.

In another preferred form, the mounting or fixing means is bolted or similarly connected to the surface to which the post is mounted or erected.

Preferably, the flexible elastic portion is made from a rubber compound or a material having similar properties to rubber compounds.

Preferably, the resilient elongate member is made from a high density polyethylene.

BRIEF DESCRIPTION OF THE DRAWINGS

One embodiment of the present invention will now be described with reference to the drawings in which;

Fig.1 is a perspective view of a guidepost of a first embodiment,;

Fig.2 is a view of the guidepost of Fig.1;and

Fig.3 is a side view of the guidepost of Fig.1.

BEST MODE OF CARRYING OUT THE INVENTION

Referring to Figs.1,2 and 3,a guidepost 10 for use along the side of the road to provide a visual guide to motorists of the position and direction of the road,includes an elongate member 11 which is made from a resilient material such as high density polyethylene.This elongate member 11 is made from a resilient material which is able to bend and be restored to its configuration without breaking in most circumstances when a force is applied thereto,such as when struck by a motor vehicle.The elongate member 11 made from the resilient material also has the property that it does not cause any substantial damage to the motor vehicle or its occupants when so struck by the motor vehicle.The elongate member 11 preferably has a reflector(s)(not illustrated) to reflect the lights of approaching motor vehicles in the conventional manner.

The guidepost 10 also includes a peg portion 12,which in this preferred embodiment is made from steel and is thus able to be forced into the ground beside the road.The peg portion 12 in this embodiment has a pointed blade 13 and guides 14 along its outside edges to assist the ease of insertion into the ground.

A flexible hinge 15 connects between the elongate member 11 and the peg portion 12.The flexible hinge 15 preferably made from a rubber compound or other such material,consists of a short strip of flexible material which is fixed to the adjacent port-

ions of the elongate member 11 and the peg portion 12. In this preferred embodiment, the hinge 15 is fixed by means of brackets 16, and Cherrymate Rivets (Registered Trade Mark) 17. As seen from the drawings, the hinge 15 spaces the elongate member 11 and the peg portion 12 apart which therefore allows for the relative pivotal movement there between.

The guidepost 10 of the preferred embodiment is used by forcing it into the ground along the side of a road. The guidepost 10 can be inserted into the ground manually by the use of known insertion tools or sledge hammers or the like bearing a downwards force on the peg portion 12. It is envisaged that a more suitable method of insertion can be used where the guideposts 10 are automatically inserted by a machine atregular intervals along the side of the road. This would reduce the labour content of the cost of installing the guideposts 10.

When in use, if the guidepost 10 is struck by a motor vehicle, the flexible hinge 15 bends due to the force applied and the elongate member 11 pivots about the hinge 15. The elongate member 11 in most circumstances does not break and is not permanently damaged and returns to its upright position after the motor vehicle has passed. The flexibility of the hinge 15 allows the elongate member to return to its upright position even if it is struck by motor vehicles a number of times over a long period of time. It may be necessary to occasionally replace a guidepost 10 if it is damaged by being struck by a motor vehicle in an unusually excessive fashion.

The foregoing describes only one embodiment of the invention and modifications obvious to those skilled in the art can be made thereto without departing from the scope of the present invention.

For example, the guidepost can have a different type of mounting or fixing requirements whereby the guidepost has to be mounted to a concrete or like surface, eg. when used on a traffic island. In such an example, the mounting means of the guidepost includes

a bracket means attached to the concrete by means of dynabolts (Registered Trade Mark)or such similar devices.

The preferred embodiment has been described with respect to guideposts for indication the position and direction of a road, but naturally,the post of the present invention has other applications such as guides or markers for telecommunications or electric cables etc.The invention also includes within its scope,structures other than posts where it is desirable to have the same flexibility and recoverability of the post of the preferred embodiment.Such a structure could be a triangular traffic hazard indicator.

The claims defining the invention are as follows:

1. A guidepost or similar such post which is flexible, particularly adjacent its base when inserted into the ground, so that it can easily bend when a force is exerted thereon, and which has a substantially hard spike or like arrangement which enables it to be easily inserted into the ground without the need for a post hole to be provided for insertion.

2. A guidepost or similar such post which is flexible, particularly adjacent its base so that it can easily bend when a force is exerted thereon, and which has a base or like arrangement which enables it to be easily bolted or the like to concrete or like surfaces.

3. A guidepost or similar such post of claims 1 and 2 comprising of a resilient elongate member adapted to extend upwardly from a surface to which said post is mounted or fixed, and a flexible elastic portion connecting between said resilient elongate member and a mounting or fixing means by which said post is mounted or fixed to said surface, whereby said flexible elastic portion allows said resilient elongate member to deflect and return to an upright position following an application of a force to same.

4. A guidepost or similar such post of claim 1 has in one preferred form the mounting or fixing means made from a hard material and is adapted to be forced into the surface, when the surface is relatively soft, such as the earth's ground surface.

5. The guidepost or similar such post of claim 1 has the mounting or fixing means preferably taken as the form of a metal peg which is forced into the ground with the flexible elastic portion of the post being adjacent the ground's surface when erected.

6. The guidepost or similar such post of claim 2 has the preferred mounting or fixing means of being bolted or similarly connected to the surface to which the post is mounted or erected.

7. The guidepost or similar such post of any claims 1 to 6 has preferably the flexible elastic portion made from a rubber compound or a material having similar properties to rubber compounds.

8. The guidepost or similar such post of any claims 1 to 6 has preferably the resilient elongate member made from a high density polyethylene or a material having similar properties to high density polyethylene.

9. A guidepost or similar such post substantially as herein described with reference to the accompanying drawings.

BARRY JOHN PHILLIPS 29 AUGUST 1996

ABSTRACT

A guidepost or similar such post is disclosed.The device is a resilient elongate member (11) connected to a short flexible elastic portion (15) by brackets (16) and rivets (17) which is connected to a metal peg (12) by brackets (16) and rivets (17),which is driven into the ground by known tools without the need for a post hole to be provided for insertion.The device can be bent over many times and return to its erect position without breaking.

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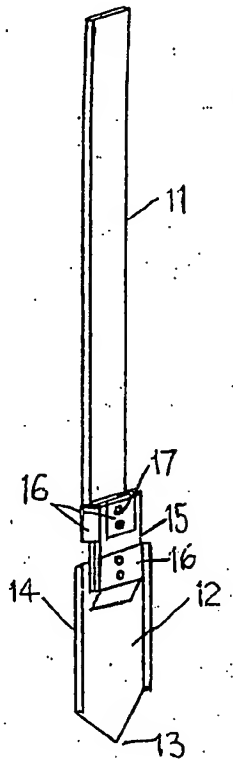

FIGURE 1

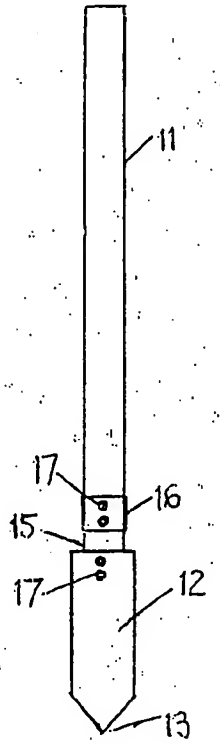

FIGURE 2

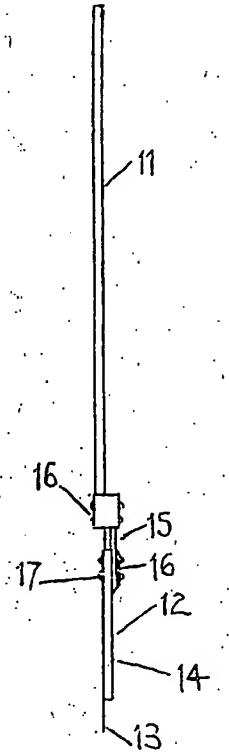

FIGURE 3

65536/96

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